



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R03-OAR-2021-0854; FRL-9381-01-R3]

Air Plan Approval; Delaware; Philadelphia Area 2017 Base Year Inventory for the Ozone National Ambient Air Quality Standard

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve a state implementation plan (SIP) revision formally submitted by the State of Delaware. This revision consists of the base year inventory for the Delaware portion of the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE marginal nonattainment area (Philadelphia Area) for the 2015 ozone national ambient air quality standards (NAAQS). This action is being taken under the Clean Air Act (CAA).

DATES: Written comments must be received on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R03-OAR-2021-0854 at <https://www.regulations.gov>, or via email to Gordon.Mike@epa.gov. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be confidential business information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission

(i.e., on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Adam Yarina, Planning & Implementation Branch (3AD30), Air & Radiation Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103. The telephone number is (215) 814-2103. Mr. Yarina can also be reached via electronic mail at Yarina.Adam@epa.gov.

SUPPLEMENTARY INFORMATION: On October 9, 2020, the Delaware Department of Natural Resources and Environmental Control (DNREC) on behalf of the State of Delaware, submitted a revision to the Delaware SIP entitled, “2017 Base Year Emissions Inventory State Implementation Plan for VOC, NO_x, and CO for Areas of Marginal Nonattainment of the 2015 Ozone NAAQS in Delaware.” New Castle County comprises Delaware’s portion of the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE 2015 ozone NAAQS nonattainment area. This SIP revision, referred to in this rulemaking action as the “New Castle County base year inventory SIP,” addresses Delaware’s base year inventory requirement for the 2015 ozone NAAQS.

I. Background

On October 1, 2015, EPA strengthened the 8-hour ozone NAAQS, lowering the level of the NAAQS from 0.075 ppm parts per million (ppm) to 0.070 ppm. See 80 FR 65292 (October 26, 2015). Effective August 3, 2018, EPA designated the Philadelphia Area, which consists of New Castle County in Delaware and counties in Maryland, New Jersey, and Pennsylvania, as marginal nonattainment for the 2015 ozone NAAQS. See 83 FR 25776 (June 4, 2018). CAA section 182(a)(1) requires ozone nonattainment areas classified as marginal or above to submit a comprehensive, accurate, current inventory of actual emissions from all emissions sources in the

nonattainment area, known as a “base year inventory.” The New Castle County base year inventory SIP addresses a base year inventory requirement for the Philadelphia Area.

II. Summary of SIP Revision and EPA Analysis

A. EPA Evaluation of the New Castle County Base Year Inventory SIP

EPA’s review of Delaware’s base year inventory SIP indicates that it meets the base year inventory requirements for the 2015 ozone NAAQS. As required by 40 CFR 51.1315(a), DNREC selected 2017 for the base year inventory, which is consistent with the baseline year for the RFP because it is the year of the most recent triennial inventory. DNREC included actual ozone season emissions, pursuant to 40 CFR 51.1315(c).

EPA prepared a Technical Support Document (TSD) in support of this rulemaking. In that TSD, EPA reviewed the results, procedures, and methodologies for the SIP base year, and found them to be acceptable and developed in accordance with EPA’s technical guidance. The TSD is available online at <http://www.regulations.gov>, Docket ID No. EPA-R03-OAR-2021-0854.

B. Base Year Inventory Requirements

In EPA’s December 6, 2018 (83 FR 62998) rulemaking, “Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements,” known as the “SIP Requirements Rule,” EPA set out nonattainment area requirements for the 2015 ozone NAAQS. SIP Requirements Rule established base year inventory requirement, which were codified at 40 CFR 51.1315. As per 40 CFR 51.1315(a), each 2015 ozone nonattainment area is required to submit a base year inventory within 2 years of designation (i.e., no later than August 3, 2020).

Also, 40 CFR 51.1315(a) requires that the inventory year be selected consistent with the baseline year for the reasonable further progress (RFP) plan as required by 40 CFR 51.1310(b), which states that the baseline emissions inventory shall be the emissions inventory for the most recent calendar year for which a complete triennial inventory is required to be submitted to the

EPA under the provisions of subpart A of 40 CFR part 51, Air Emissions Reporting Requirements, 40 CFR 51.1 through 51.50. The most recent triennial inventory year conducted for the National Emissions Inventory (NEI) pursuant to the Air Emissions Reporting Requirements (AERR) rule is 2017. See 73 FR 76539 (December 17, 2008). Delaware selected 2017 as their baseline emissions inventory year for RFP. This selection comports with EPA's implementation regulations for the 2015 ozone NAAQS because 2017 is the inventory year. 40 CFR 51.1310(b).¹

Furthermore, 40 CFR 51.1315(c) requires emissions values included in the base year inventory to be actual ozone season day emissions as defined by 40 CFR 51.1300(q), which states that ozone season day emissions means an average day's emissions for a typical ozone season work weekday. The state shall select, subject to EPA approval, the particular month(s) in the ozone season and the day(s) in the work week to be represented, considering the conditions assumed in the development of RFP plans and/or emissions budgets for transportation conformity.

C. New Castle County Base Year Inventory SIP

The New Castle County base year inventory SIP contains an explanation of DNREC's 2017 base year emissions inventory for New Castle County (2017 New Castle County BYE) for point, non-point, and mobile anthropogenic sources within New Castle County. DNREC estimated anthropogenic emissions for nitrogen oxide (NO_x), volatile organic compound (VOC), and carbon monoxide (CO) for annual and Summer Season Weekday (SSWD) daily emissions. The 2017 New Castle County BYE contains the following source categories of anthropogenic emissions sources: stationary point, stationary non-point, mobile non-road, and mobile on-road sources, with an explanation of the methodologies used to derive emissions summaries for each

¹ On January 29, 2021, the Court of Appeals for the D.C. Circuit issued its decision regarding multiple challenges to EPA's implementation rule for the 2015 ozone NAAQS which included, among other things, upholding this provision allowing states to use an alternative baseline year for RFP. *Sierra Club v. EPA*, 985 F.3d 1055 (D.C. Cir. 2021). The other provisions of EPA's ozone implantation rule at issue in the case are not relevant for this rulemaking.

source category contained within each respective section.

1. Stationary Point Sources

Point sources are larger sources that are located at a fixed, stationary location. As defined by the AERR in 40 CFR 51.50, point sources are large, stationary (non-mobile), identifiable sources of emissions that release pollutants into the atmosphere. A point source is a facility that is a major source under 40 CFR part 70 for one or more of the pollutants for which reporting is required by 40 CFR 51.15 (a)(1). These point sources can be associated with a single point or group of points in space. Examples of point source emissions categories include power plants, industrial boilers, petroleum refineries, cement plants, and other industrial plants.

As stated in Section 2 of the 2017 New Castle County BYE, point sources included large industrial (e.g., manufacturing), commercial, and institutional facilities (e.g., hospitals, universities, prisons, military bases, landfills, and wastewater treatment plants) within New Castle County that held either a Title V permit or a Synthetic Minor permit in 2017. DNREC explains that it used several methods of source identification. DNREC's primary data source is its permitting program, and DNREC's compliance program identifies other point sources through facility inspections and investigations. In addition, facilities are required by Delaware's emissions statement regulations, facilities are required by Delaware's emissions statement regulations, Delaware Administrative Code (DAC) 7 DE Admin. Code 1117 Source Monitoring, Record Keeping and Reporting, to certify the air emissions for the past calendar year. The certified emissions are used for inventory and planning purposes. The certified emissions are used for inventory and planning purposes.

DNREC's Division of Air Quality (DAQ) developed the point source data for the 2017 base year inventory. The point source inventory contains emissions for electric generating units (EGUs) and Non-EGU sources in the nonattainment area. EPA guidance for emissions inventory development provides that ozone season day emissions are used for the base year inventory for the nonattainment area. DAQ developed their 2017 inventory by using emissions directly

reported to the agency by facilities as required by Delaware air quality regulations. These emissions are also reported to EPA, and after going through EPA's quality assurance (QA) and quality control (QC) process, are included in EPA's National Emissions Inventory (NEI). The emissions for this base year can be found in EPA's 2017 NEI.²

2. Stationary Non-Point Sources

Stationary non-point sources represent a large and diverse set of individual emission source categories. These sources collectively represent individual sources of emissions that have not been inventoried as either specific stationary point or mobile sources, and are typically too small, numerous, or difficult to inventory using the methods for the other classes of sources.

Stationary non-point sources that DNREC evaluated for the 2017 New Castle County BYE include solvent use (e.g., dry cleaners, auto refinishing), gasoline usage and distribution (e.g., tank truck unloading and auto refueling), fuel combustion (e.g., combustion of fuels in industrial, commercial, institutional, and residential furnaces, engines, boilers, wood stoves, and fireplaces), and open burning (e.g., trash burning, prescribed burning, burning of land clearing debris, wildfires, building fires, and vehicle fires). Section 3.2 of the New Castle County BYE sets out the methodologies DNREC used to estimate emissions for each of these non-point source categories. These methods are consistent with the most recent EPA emission inventory guidance.

3. Non-Road Mobile Sources

Non-road mobile sources represent a large and diverse set of off-road vehicles and non-stationary equipment. As per 40 CFR 51.50, a non-road engine is an internal combustion engine (including the fuel system) that is not used in an on-road motor vehicle or a vehicle used solely for competition, or that is not affected by sections 111 or 202 of the CAA. Also defined by 40 CFR 51.50, a non-road vehicle (rather than engine) is a vehicle that is run by a non-road engine

² The Technical Support Document for the Base Year Inventory Submitted with the 2015 8-Hour Ozone NAAQS Marginal Area State Implementation Plan for the Philadelphia Area, included in the docket for this rulemaking available online at <https://www.regulations.gov>, Docket ID: EPA-R03-OAR-2021-0854.

and that is not an on-road motor vehicle or a vehicle used solely for competition. Examples of non-road mobile sources include aircraft, airport ground support equipment, agricultural and construction equipment powered by an internal combustion engine, commercial marine vessels, locomotives, and lawn and garden engines and equipment.

As explained in Section 4 of the New Castle County BYE, consistent with EPA's Emission Inventory Guidance for Implementation of Ozone and Particulate Matter NAAQS and Regional Haze Regulations, DNREC used EPA's Motor Vehicle Emission Simulator (MOVES) 2014b model to develop the inventory for non-road mobile sources. MOVES2014 and later calculates emissions from both onroad and non-road mobile sources and covers non-road sources across 12 broad economic sectors (e.g., construction, agriculture, industrial, lawn & garden, etc.) classified by horsepower rating, engine type (e.g., compression ignition, spark ignition) and displacement, and fuel type (e.g., gasoline, diesel, compressed natural gas (CNG), and liquefied petroleum gas (LPG)).

Section 4 of the New Castle County BYE also includes aircraft, railroad locomotive, and commercial marine vessel emissions. DNREC calculated emissions from these sources by collecting data directly from surveyed sources, or activity from state and federal reporting agencies. To estimate emissions for aircraft, DNREC used airport activity statistics from the Federal Aviation Administration (FAA), landing and takeoff cycle information from the Delaware Department of Transportation (DelDOT), and survey information for landing and takeoffs, engine type, location, and usage data from airports within New Castle County. Railroad emission estimates were developed using activity and fuel consumption estimates collected from the rail companies within the state, including the Maryland & Delaware (MDDE) Railroad, Delaware Coast Line Railroad, Delmarva Central Railroad, Eastern Penn Railroad, and Wilmington and Western. For commercial marine vessels, DNREC calculated emissions for ocean-going vessels, towboats, tug-assist vessels, ferries, and vessels associated with dredging operations. Emissions were calculated based on mode of operation, vessel type, tonnage, and

engine type; DNREC developed county emission allocation factors based on the location of the activity on various waterways and length of the waterway segment. These methods of calculating emissions are consistent with the most recent EPA emission inventory guidance.³

4. On-Road Mobile Sources

On-road mobile sources are also called “highway mobile sources.” These sources are the motor vehicles (e.g., automobiles, buses, trucks) traveling on local and highway roads. On-road mobile source emission estimates should utilize the latest recommended on-road mobile source models; currently, that means the EPA’s MOVES model for all states except California. The MOVES model estimates emissions from vehicle exhaust and from mobile source evaporative emissions, both of which must be included in the inventory. Volatile hydrocarbons evaporate from fuel systems while a vehicle is refueling, parked, or driving. Evaporative processes differ from exhaust emissions because they don’t directly involve combustion, which is the main process driving exhaust emissions.

As stated in Section 5 of the New Castle County BYE, DNREC used EPA’s MOVES2014b model to estimate 2017 annual emissions and 2017 SSWD daily emissions from on-road sources in New Castle County. Emissions were estimated based on emission factors and vehicle activity. Emission factors for vehicles were based on vehicle type (e.g., passenger cars, passenger trucks), vehicle age, and the vehicle's operating modes. Operating modes for running, start, and idle emissions are included in MOVES. The emission factors varied over a range of conditions, including ambient air temperature, speed, traffic conditions, road types, road topography, etc. The generated emission factors were then multiplied by the appropriate vehicle miles traveled (VMT) to estimate emissions. To estimate the rate at which emissions are being generated and to calculate VMT, DNREC examined its road network, vehicle fleet, and traffic

³ Emission Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations, Page 130, included in the docket for this rulemaking available online at <https://www.regulations.gov>, Docket ID: EPA-R03-OAR-2021-0854.

data to estimate vehicle activity. DNREC used computer models to perform emissions calculations by simulating the travel of vehicles on Delaware's roadway system.

EPA has reviewed the results, procedures, and methodologies for the SIP base year, as well as comparing the inventory with previously QA/QC'd data in EPA's 2017 NEI for any data discrepancies and found none. EPA has therefore determined that the base year inventory to be acceptable and developed in accordance with EPA's technical guidance.

5. Emissions Summary

The New Castle County BYE contains a summary of 2017 annual and ozone SSWD daily emissions by source sector, which is presented in Table 1 in this document.

Table 1. 2017 New Castle County Base Year Emission Inventory Summary

Source Category	Annual (tons per year)			SSWD (tons per day)		
	VOC	NOx	CO	VOC	NOx	CO
Stationary Point	747	2,504	1,766	3.11	14.53	10.42
Stationary Non-Point	3,387	1,444	3,527	10.63	2.76	6.76
Non-Road Mobile	2,245	3,152	23,844	7.68	9.27	92.89
On-Road Mobile	2,213	5,184	28,807	6.23	15.70	87.23
Total	8,592	12,284	57,944	27.65	42.26	197.30

III. Proposed Action

EPA's review of this material indicates the New Castle County base year inventory SIP meets the base year inventory requirement for the 2015 ozone NAAQS for Delaware's portion of the Philadelphia Area that is designated nonattainment, which consists of New Castle County, Delaware. Therefore, EPA is proposing to approve the New Castle County base year inventory SIP, which was submitted on October 9, 2020. EPA is soliciting public comments on the issues discussed in this document. These comments will be considered before taking final action.

IV. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as

meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed rulemaking, proposing to approve Delaware’s base year inventory SIP for the 2015 ozone NAAQS, does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to

apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Nitrogen oxides, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: January 3, 2022.

Diana Esher,
Acting Regional Administrator,
Region III.

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